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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,005	12/28/2001	Juanita Parris	C-531	1866

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EXAMINER	
SHOSHO, CALLIE E	

ART UNIT	PAPER NUMBER
1714	

DATE MAILED: 12/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/034,005	PARRIS ET AL.	
	Examiner	Art Unit	
	Callie E. Shosho	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 November 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-52* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *25-52* is/are allowed.

6)☐ Claim(s) *1,2,6,8,9,11-13,15 and 19-24* is/are rejected.

7)☒ Claim(s) *3-5,7,10,14 and 16-18* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1-2, 12-13, 19, and 21-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Scheibelhoffer et al. (U.S. 5,670,561).

The rejection is adequately set forth in paragraph 2 of the office action mailed 8/21/03 and is incorporated here by reference.

3. Claims 1-2, 9, and 21-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Takahashi et al. (U.S. 4,234,466).

The rejection is adequately set forth in paragraph 3 of the office action mailed 8/21/03 and is incorporated here by reference.

4. Claims 1-2, 6, 8-9, 11-12, 15, 19-20, and 22-24 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 116666 taken in view of the evidence of Thomm et al. (U.S. 3,846,507) and Login (U.S. 4,098,741).

The rejection is adequately set forth in paragraph 4 of the office action mailed 8/21/03 and is incorporated here by reference.

Response to Arguments

5. Applicants' arguments filed 11/9/05 have been fully considered but they are not persuasive.

Specifically, applicants argue that the examiner's position in the prior art rejections of record that given that the resin contains hydrophobic monomer and hydrophilic monomer that are present in the same ratio as presently claimed, the resin will inherently be soluble in both water and solvent as presently claimed is incorrect. Applicants argue that examiner has provided no evidence to support this position and also argue that solubility in water or solvent is not entirely dependent upon the ratio of hydrophobic monomer to hydrophilic monomer.

However, firstly, it is noted that the examiner did not use such inherency argument with respect to EP 11666 given that EP 11666 explicitly discloses (page 2, lines 9-10) the use of resin that is soluble in both water and solvent.

Secondly, with respect to Scheibelhoffer et al. and Takahashi et al., the examiner's position remains that given that the resin of Scheibelhoffer et al. and Takahashi et al. each contain both hydrophobic monomer and hydrophilic monomer that are present in ratio as presently claimed, it is clear that the resin will inherently be soluble in both water and solvent as presently claimed. It is noted that it is examiner's position that the resin of the prior art is inherently soluble in both water and solvent given that the resin contains both hydrophilic monomer and hydrophobic monomer and that these monomers are present in ratio as presently claimed. Given that hydrophobic monomers and the hydrophilic monomers each have different solubility in water and in solvent, it is clear that the mere presence of each in the resin would necessarily impart some degree of water solubility and solvent solubility to the resin. Evidence to

support this position is found, for instance, in Boessler et al. (U.S. 4,112,215), which discloses that hydrophobic monomers promote solubility in organic solvents and limit solubility in water while hydrophilic monomers promote solubility in water (col.3, lines 12-19). Thus, it is clear that the presence of both hydrophobic monomer and hydrophilic monomer would produce resin with both water solubility and solvent solubility and that by controlling the ratio of hydrophobic monomer to hydrophilic monomer present in the resin, one would control the solubility of the resin in water and in solvent.

Further, with respect to Scheibelhoffer et al., given that Scheibelhoffer et al. disclose styrene maleic anhydride copolymer possessing both hydrophobic monomer, i.e. styrene, and hydrophilic monomer, i.e. maleic anhydride, in ratio as presently claimed, it is clear that the copolymer would inherently be soluble in both water and solvent. Evidence to support this position in found in Gabriel et al. (U.S. 5,476,6877) which discloses that styrene maleic anhydride is soluble in a number of solvents and that the solubility of the copolymer in solvent increases as the ratio of styrene monomer to maleic anhydride monomer increases (col.4, lines 6-10) and Alexander et al. (U.S. 4,820,773) which discloses that the higher the ratio of styrene to maleic anhydride, the lower the solubility of styrene maleic anhydride in water (col.9, lines 2-5). Thus, it is clear that solubility in water and in solvent for styrene maleic anhydride copolymer as disclosed by Scheibelhoffer et al. does in fact depend on the presence of the hydrophobic monomer and the hydrophilic monomer as well as their ratio.

Applicants also argue that the prior art recognizes that the resin is not necessarily soluble in both water and solvent by noting that Scheibelhoffer et al. optionally includes surfactant in his color concentrate presumably to aid with water solubility where this is a problem. However,

there is no disclosure or suggestion in Scheibelhoffer et al. that the surfactant is utilized to aid water solubility of the resin. Further, even if the surfactant in Scheibelhoffer et al. is used to control the water solubility of the resin, there is nothing in the scope of the present claims that excludes the use of such surfactant. That is, the present claims only require that the resin is soluble in water and solvent. There is no requirement regarding how or why the resin is soluble. Additionally, in light of the open language of the present claims, i.e. comprising, the use of surfactant is not excluded from the scope of the present claims.

In light of the above, the examiner's position remains that given that the resin of Scheibelhoffer et al. and Takahashi et al. each contain both hydrophobic monomer and hydrophilic monomer that are present in ratio as presently claimed, the resin will inherently be soluble in both water and organic solvent as presently claimed.

Allowable Subject Matter

6. Claims 3-5, 7, 10, 14, and 16-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The above claims would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims for the following reasons.

Scheibelhoffer et al. (U.S. 5,670,561) disclose method of making color concentrate comprising dispersing a pigment in acrylic resin, Takahashi et al. (U.S. 4,234,466) disclose method of making solid pigment dispersion comprising dispersing a pigment into polyester, and EP 116666 each disclose method of making color concentrate comprising dispersing a pigment

in acrylic resin, polyamide or polyester. However, there is no disclosure in any of the references of dispersing a pigment in polyurethane which is obtained from hydrophobic monomer and hydrophilic monomer as required in present claims 3-5 or in copolymer which is urethane-amide or urethane-ester which is obtained from hydrophobic monomer and hydrophilic monomer as required in present claim 14. Further, while Takahashi et al. and EP 116666 disclose the use of polyamide and/or polyester, there is no disclosure in either reference that the total weight of the hydrophobic monomer and hydrophilic monomer in the polyamide is 40-60% and in the polyester is 50-70% as required in present claims 7 and 10, respectively.

Additionally, all the references are silent with respect to the amine number of the resin as required in present claims 17-18 while Scheibelhoffer et al. and Takahashi et al. are silent with respect to the acid number of the resin. While EP 116666 discloses that the acid number of the polyester is 5-15, this falls outside the scope of present claim 16, which requires acid number of 30-500.

7. Claims 25-52 are allowable over the "closest" prior art Scheibelhoffer et al. (U.S. 5,670,561), Takahashi et al. (U.S. 4,234,466), and EP 116666 given that Scheibelhoffer et al. disclose that the color concentrate is used to color plastic, Takahashi et al. disclose that the solid pigment dispersion is used to color plastic or powdery paint, and EP 116666 discloses that the color concentrate is used to color synthetic textile fibers. Thus, there is no disclosure or suggestion in any of the references of method comprising dissolving the color concentrate or solid pigment dispersion into water or organic solution. Further, it is noted that there is no disclosure or suggestion of ink.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
11/21/05